



PATENT
P56843

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 1. (Original) A wireless network system capable of tracking a location of a mobile station
2 comprising:

3 a visitor location register in which location information relating to a wireless network
4 location of a mobile station is stored; and

5 a base station controller storing location information relating to a wireless network location
6 of a mobile station in said visitor location register when the mobile station registers its location with
7 said wireless network, and confirming a location of the mobile station by dummy paging and
8 updating the location information stored in said visitor location register when the mobile station
9 keeps up an idle state during a certain period.

1 2. (Original) A private wireless network system capable of tracking a location of a mobile
2 station comprising:

3 at least one repeater dispersedly installed in sector zones of a private base transceiver station;
4 a visitor location register in which location information relating to a private wireless network
5 location of a mobile station is stored, the location information including at least one of a private base
6 transceiver station number, a sector number and a repeater number; and

7 a private base station controller storing location information relating to a private wireless
8 network location of a mobile station in said visitor location register when the mobile station registers
9 its location with said private wireless network, and confirming a location of the mobile station by
10 dummy paging and updating the location information stored in said visitor location register when
11 the mobile station keeps up an idle state during a certain period.

1 3. (Previously Presented) A private wireless network system capable of tracking a location
2 of a mobile station comprising:

3 a plurality of repeaters dispersedly installed in sector zones of a private base transceiver
4 station;

5 a visitor location register in which location information relating to a private wireless network
6 location of a mobile station is stored, the location information including at least one of a private base
7 transceiver station number, a sector number and a repeater number;

8 a private base station controller storing location information relating to a private wireless
9 network location of a mobile station in said visitor location register when the mobile station registers
10 its location with said private wireless network, and confirming a location of the mobile station by
11 dummy paging and updating the location information stored in said visitor location register when
12 the mobile station keeps up an idle state during a certain period; and

13 a server inquiring about the location information of the mobile station stored in said visitor
14 location register.

1 4. (Original) A method for tracking a location of a mobile station in a wireless network
2 comprising:

3 storing location information relating to a wireless network location of a mobile station in a
4 visitor location register when the mobile station registers its location with said wireless network;

5 confirming a location of the mobile station by dummy paging when the mobile station keeps
6 up an idle state during a certain period; and

7 updating the location information stored in said visitor location register using the confirmed
8 location information of the mobile station.

1 5. (Original) The method according to claim 4, the location information includes at least one
2 of a base transceiver station number, a sector number and a repeater number.

1 6. (Original) In a private wireless network including a visitor location register in which
2 location information of a mobile station is stored, a method for tracking a location of a mobile station
3 comprising:

4 storing, by a private base station controller of said private wireless network, location
5 information relating to a private wireless network location of a mobile station in said visitor location
6 register when the mobile station registers its location with said private wireless network;

7 confirming, by said private base station controller, a location of the mobile station by dummy
8 paging when the mobile station keeps up an idle state during a certain period; and

9 updating the location information stored in said visitor location register using the confirmed

10 location information of the mobile station.

1 7. (Original) The method according to claim 6, the location information includes at least one
2 of a private base transceiver station number, a sector number and a repeater number.

1 8. (Original) In a private wireless network including at least one repeater dispersedly
2 installed in sector zones of a private base transceiver station and a visitor location register in which
3 location information of a mobile station is stored, a method for tracking a location of a mobile station
4 comprising:

5 storing, by a private base station controller of said private wireless network, location
6 information of a mobile station in said visitor location register when the mobile station registers its
7 location with said private wireless network, the location information including at least one of a
8 private base transceiver station number, a sector number and a repeater number with respect to the
9 relevant mobile station;

10 confirming, by said private base station controller, a location of the mobile station by dummy
11 paging when the mobile station keeps up an idle state during a certain period; and

12 updating the location information stored in said visitor location register using the confirmed
13 location information of the mobile station.

1 9. (Original) In a private wireless network including a visitor location register and a server
2 representing location information of a mobile station, a method for tracking a location of a mobile

station comprising:

storing, by a private base station controller of said private wireless network, location information relating to a private wireless network location of a mobile station in said visitor location register when the mobile station registers its location with said private wireless network;

confirming, by said private base station controller, a location of the mobile station by dummy paging when the mobile station keeps up an idle state during a certain period;

updating the location information stored in said visitor location register using the confirmed location information of the mobile station; and

transmitting, by said private base station controller, the location information of the mobile station to said server when the location information of the mobile station is stored in said visitor location register.

10. (Currently Amended) A method for tracking a location of a subscriber, comprising:

storing location information when a mobile station executes location registration, the location information including a private base transceiver station number, a sector number and a repeater number with respect to the relevant mobile station;

periodically transmitting a message requesting an inquiry about a mobile station subscriber's state to a server;

requesting a private base station controller to inquire out location information stored in a visitor location register in response to the inquiry message;

transmitting location information stored in a visitor location register to a server in response

10 to the server's request;

11 transmitting the location information received from said private base station controller to the
12 client; [[and]]

13 receiving the location information from said server and providing a user with a location and
14 state of a mobile station according to the received location information; and

15 confirming a location and state of a mobile station by dummy paging and updating its
16 location information of said visitor location register when the relevant mobile station keeps up an
17 idle state during a certain period, and then transmitting the updated location information to said
18 server.

Claim 11. (Cancelled)

1 12. (Original) A method for tracking a location of a subscriber, comprising:
2 storing location information when a mobile station executes location registration, the location
3 information including a private base transceiver station number, a sector number and a repeater
4 number with respect to the relevant mobile station;

5 appointing a specific mobile station and requesting a client to inquire about the specific
6 mobile station subscriber's state, and the client transmitting a message inquiring about the specific
7 mobile station subscriber's state to a server in response to the user's request;

8 requesting a private base station controller to confirm a location and state of the specific
9 mobile station in response to the client's message; and

10 confirming the location and the state of the specific mobile station by dummy paging,
11 updating location information stored in a visitor location register and transmitting the updated
12 location information to said server in response to said server's request.

1 13. (Original) The method according to claim 12, further comprising of:
2 transmitting the location information received from said private base station controller to the
3 client; and
4 receiving the location information from said server and providing a user with a location and
5 state of the specific mobile station according to the received location information.

1 14. (Previously Presented) The method according to claim 10, further comprised of
2 transmitting location information stored in said visitor location register directly to the server, remote
3 from the visitor location register, in response to the server's request.

1 15. (Previously Presented) The private wireless network system of claim 3, with said server
2 being connected to said base station controller through a local area network and the plurality of
3 repeaters being connected to the private base transceiver station, with the private base transceiver
4 station being connected to said private base station controller.

1 16. (Previously Presented) The private wireless network system of claim 15, further
2 comprising a client being informed of the location information from said server, with said client

3 being connected to said server, said server not accommodating the communication link between
4 mobile stations.

1 17. (Previously Presented) The method of claim 13, with said client being connected to said
2 server, said server being connected to said base station controller through a certain network and a
3 plurality of repeaters being connected to the private base transceiver station, with the private base
4 transceiver station being connected to said private base station controller.